established, after which it is able to take care of itself and thrives well, provided neither soil nor sub-soil is sandy.

2.—BUILDINGS.

87. Suitable house and office accommodation is required for range officers in all the ranges: each building ought to cost about Rs. 2,000 which could be met by budget provision being made for one range a year. At present range officers make their own arrangements for housing themselves and their office, except in Mirpur where there is a Government building. Present arrangement for housing the protective establishment is sufficient.

CHAPTER X.

Forecast of financial results of proposed working:—

88. As long as the demand for firewood by the railway continues a sure market for the principal produce of the forests will be found. In the existing state of the forests the yearly out-turn of the fellings in fuel is estimated at 40,00,000 cubic ft. which, at the present low rate obtaining, cannot be expected to realise more than Rs 48,000; and, estimating the revenue from other sources at Rs. 50,000, the annual revenues will amount to Rs. 98,000. The average annual expenditure during the last five years (1897-98 to 1901-1902) has been Rs. 31,982, and the average annual profit Rs. 64,338, so that from the financial point of view the proposed working will compare favourably with the working in the past. With the improvement of the forests under systematic working and efficient supervision controlling the protection of closed areas, the annual yield and annual net profit will be larger, but it must be borne in mind that the productive area must also be kept up in place of exhausted lands which have lost their capacity for regeneration.

89. The following appendices accompany the report:—

Appendix A. Areas of forests and other details.
" B.* Areas of compartments and working circles.
" C. Prescription of coupes, 1901-02 to 1910-1911.
" D. Description of working circles.
" E. Settlement record.
" E^1. Rights of water-course.
" E^2. Rights of way.
" F.* List of rates at which loco. fuel is delivered at stations to the N.-W. Railway.
" G. Maximum gauge readings for each month for 22 years from 1881 at the Bukkur gauge.
" H. Revenue and expenditure for the last 10 years ending 1901-02.
" I. Out-turn of major and minor forest produce; revenue realised from ghats and return of grazing for 10 years ending 1901-02.
" J.* Grazing regulations.
" K.* Commissioner's special circulars: No. 22—Forest settlement officer—duties of— No. 23—Rules regarding alluvion and dilluvion owing to changes in the course of the river Indus or other waters in the Province of Sind. No. 24—Alluvial lands claimed by the Forest department.
" L. Erosion and accretion curve of the forests of Sukkur division from 1880-1901.
" M. 2" to a mile, maps of Sukkur division ranges.
" N. Map of the Sukkur division, 4 miles to 1 inch.

A. C. ROBINSON,

Divisional Forest Officer,
Working Plans (Sind).

Approved.

T. R. D. BELL,

Deputy Conservator of Forests,
Sind Circle.

Countersigned.

W. A. TALBOT,
Superintendent of Working Plans.

* Not printed.

APPENDIX A.

Areas of Forests and other details, Sukkur Division, 1903-04.

Range.	Forests.	Number and date of Government notification.	Area at the time of original notification.	Area at the close of the current year, excluding kachas.	Area Lost.		Area of kachas.		Total present area of the reserve.	Remarks.
					Erosion.	Disforestment.	Declared reserved.	Not declared reserved.		
			A. g.	A. g.	A. g.	A. g.		A. g.	A. g.	
Abad.	Bindi Dhareja	No. 6487 of 17th December 1878.	6,953 25	4,312 28	2,553 2	*87 35	...	1,082 36	5,395 24	* Disforested No. 7263 of the 27th September 1889.
	Kadrapur ...	Do.	2,484 26	2,102 32	...	...	...	...	2,102 32	
	Muhari-deda ...	Do.	377 35	396 36	...	...	...	...	396 36	
		No. 2552 of 26th April 1887 ...	52 35							
	Abad ...	No. 6487 of 17th December 1878.	5,604 15	2,683 4	2,921 11	...	...	2,722 36	5,406 0	
	Khia Bindi ...	Do. ...	3,118 15	156 0	2,962 15	...	...	700 36	856 36	
	Shah Belo ...	Do. ...	13,433 5	7,263 8	6,170 37	...	...	9,257 0	16,519 8	
	Muhro Mari ...	No. 6027 of 18th November 1887.	11,856 39	12,382 36	...	...	...	...	12,382 36	
		Total ...	43,881 35	29,296 24	14,607 25	87 35	...	13,763 28	43,060 12	
Kashmor.	Jhangan ...	No. 5787 of 27th August 1888 ...	2,291 16	2,390 12	...	...	...	...	2,390 12	
	Old Gublo ...	No. 6487 of 17th December 1878.	6,559 13	2,352 36	4,206 17	...	...	1,739 8	4,092 4	
	Gihalpur ...	No. 9253-A of 23rd November 1895	4,887 10	3,581 0	1,305 10	...	...	380 32	3,962 32	
	Ghander ...	Do. ...	1,676 21	1,681 32	...	...	...	...	1,681 32	
	Badani ...	Do. ...	772 15	732 24	...	...	...	...	732 24	
	Makhan Belo ...	Do. ...	628 30	629 36	...	...	...	...	629 36	
	New Gublo ...	Do. ...	8,047 26	8,030 16	...	...	...	...	8,030 16	
	Sunderani ...	No. 9253 of 23rd November 1895.	2,752 8	940 8	1,812 0	...	...	2,928 36	3,869 4	
	Daho ...	Do. ...	1,361 13	1,358 8	...	...	...	...	1,358 8	
		Total ...	28,976 32	21,668 12	7,323 27	...	...	5,048 36	26,717 8	
Mirpur.	Gondak ...	No. 9253 of 23rd November 1895.	5,075 24	4,558 28	518 36	...	...	2,386 0	6,944 28	
	Raoti ...	No. 6487 of 17th December 1878.	8,129 12	6,224 24	1,904 28	...	...	220 16	6,445 0	
	Wasti ...	No. 3958 of 27th May 1895 ...	2,315 5	2,326 36	...	...	...	...	2,326 36	
	Jhanwar ...	No. 6487 of 17th December 1878.	3,150 20	2,794 36	...	...	...	...	2,794 36	
	Raherki ...	No. 6226 of 31st August 1896 ...	1,653 30	1,714 20	...	...	...	...	1,714 20	
	Rangu ...	Do. ...	971 23	1,064 28	...	...	...	...	1,064 28	
	Narli ...	Do. ...	1,381 17	1,403 32	...	...	...	...	1,403 32	
		No. 1569 of 15th March 1887 ...								
	Mirpur ...	No. 6487 of 17th December 1878.	969 3							
		No. 3508 of 7th June 1887 ...	2 276 39 4,180 0	7,426 2	7,067 8	...	...	...	7,067 8	
	Islam ...	Do. ...	2,064 10	2,076 20	...	...	...	...	2,076 20	
	Sarhad ...	No. 2553-A of 24th November 1887	4,620 37	5,288 16	...	...	...	...	5,283 16	
	Atal ...	No. 2405 of 25th March 1895 ...	1,170 31	1,203 8	...	...	...	...	1,203 8	
	Jahanpur ...	No. 2553 of 26th April 1887 ..	3,743 14	4,281 0	...	...	...	...	4,281 0	
	Reti ...	No. 6226 of 31st August 1896 ...	2,387 35	2,145 12	...	...	...	...	2,145 12	
		No. 7250 of 13th October 1886 ...								
		Total ...	44,090 20	42,129 28	2,421 24	...	...	2,606 16	44,736	
Ghotki.	Lalnwali ...	No. 2405 of 25th March 1895 ...	835 5	811 32	...	...	...	...	811 32	
	Bandh ...	Do.	1,060 2	1,102 16	...	...	...	...	1,102 16	
	Ghotki ...	No. 6487 of 17th December 1878.	4,101 15	6,241 27	...	...	...	...	5,899 36	
		No. 2405 of 25th March 1895 ...	2,140 12							
	Wasir ...	No. 3508 of 7th June 1887 ...	1,416 35	1,469 24	...	...	...	...	1,469 24	
	Jurwar ...	Do.	2,838 24	2,971 24	...	...	...	...	2,971 24	
	Walu Mahar ...	No. 2553-A of 26th April 1887 ...	2,647 23	2,760 20	...	...	...	...	2,760 20	
	Sumo Wah ...	Do.	2,252 8	2,843 28	...	...	...	...	2,843 28	
	Adilpur ...	No. 3508 of 7th June 1887 ...	1,413 32	3,754 19	...	...	...	...	13,093 20	
		No. 2553-A 26th April 1887 ...	12,331 27	13,093 20						
		Total ...	31,046 23	30,953 0	...	...	...	...	30,953 0	
Sukkur.	Ghari Halim ...	No. 2552 of 26th April 1887 ...	2,096 5	2,067 0	...	...	...	...	2,067 0	
	Lakhi ...	Do. ...	3,614 20	3,721 20	...	...	...	...	3,721 20	
	Bagerji ...	No. 6487 of 17th December 1878.	13,921 5	11,390 4	2,495 9	†35 32	...	...	11,390 4	† Disforested No. 7049 of the 16th October 1890.
	Andaldal ...	Do. ...	12,193 0	10,138 12	...	‡89 20	...	...	10,138 12	‡ Do.
		Total ...	31,824 30	27,316 36	2,495 9	124 18	...	...	27,316 36	
Rohri.	Rohri ...	No. 6487 of 17th December 1878.	20,810 6	9,399 36	...	§9,329 30	...	...	9,599 36	§ Disforested No. 5557 of the 9th July 1894.
		No. 2554 of 26th April 1887 ...								
	Duber Wahan...	Do. ...	2,509 7	2,579 36	...	...	...	...	2,579 36	
	Kutta ...	No. 6487 of 17th December 1878.	9,143 27	1,716 36	...	...	...	...	1,716 36	
	Hingoro ...	Do. ...		1,917 4	...	...	...	...	1,917 4	
	Sayadpur ...	Do. ...		5,903 36	...	...	...	...	5,903 36	
	Chanjni ...	No. 2554 of 26th April 1887 ...	467 10	473 32	...	...	...	...	478 32	
	Salihani ...	No. 2553-A of 26th April 1887 ...	5,013 6	5,155 20	...	...	...	...	5,155 20	
	Sultanpur ...	Do.	1,753 17	1,815 16	...	...	...	...	1,815 16	
Sadhuja.	Sadhuja ...	No. 6487 of 17th December 1878.	7,685 1	12,113 20	...	...	...	1,293 8	13,406 28	
		No. 2405 of 25th March 1895 ...								
	Budh ...	Do. ...	1,217 17	1,266 16	...	...	...	...	1,266 16	
	Bahab ...	Do. ...	8,985 10	2,967 4	...	...	...	...	2,967 4	
	Shahpur Keti Shahu ...	Do. ..	11,215 12	12,014 16	...	...	...	5,078 28	17,093 4	
	Panhwari ...	No. 6487 of 17th December 1878..	587 17	134 0	453 17	...	...	339 24	473 24	
	Azizpur ...	Do.	880 10	332 16	537 34	...	...	129 24	462 0	
	Wahidpur ...	No. 9253-A of 23rd November 1895	1,500 21	...	1,500 21	...	...	8,351 8	8,351 8	
Rohri.	Ding ...	No. 6487 of 17th December 1878..	1,542 22	1,732 37	906 13	...	...	...	826 24	
		No. 2789 of 4th May 1900 ...	190 15							
		Total ...	73,530 38	58,621 32	3,496 5	9,329 30	...	15,192 12	73,814 4	
Kot Sultan.	Abad ...	No. 2464-A of 23rd March 1895...	995 15	1,016 28	...	...	...	...	1,016 28	
	Mehrabpur ..	Do. ...	995 31	1,019 0	...	...	...	...	1,019 0	
	Dilawarpur ...	Do. ...	925 18	904 12	...	...	...	...	904 12	
	Milkiat Sircar...	Do. ...	1,923 0	1,863 4	...	...	...	...	1,863 4	
	Kot Sultan ...	No. 6027 of 18th November 1887.	17,343 33	17,867 8	...	...	...	...	17,867 8	
		No. 358 of 15th January 1887 ...								
		Total ...	22,173 17	22,670 12	...	...	...	...	22,670 12	
		Grand Total ...	275,524 35	232,656 24	30,256 10	9,512 9	...	36,611 12	269,267 36	

(Signed) A. C. ROBINSON,
Divisional Forest Officer,
Working Plans, Sind.

True copy.

C. S. McKENZIE,
Divisional Forest Officer,
Working Plans.

APPENDIX A.

Areas of Forests and other details, Sukkur and Sadhuja ranges.

Range.	Forests.	Number and date of Government notification.	Area of the time of original notification.	Area of the close of the current year, excluding kacha.	Area lost.		Area of kacha.		Total present area of the Forest.
					Erosion.	Diforestment.	Declared resumed.	Not declared resumed.	
			A. g.	A. g.	A. g.	A. g.		A. g.	A. g.
Sukkur.	Garhi Halim ...	No. 2552 of 26th April 1887 ...	2,096 5	2,067 0	...	...	...	...	2,067 0
	Lakhi ...	Do. ...	3,014 20	3,721 20	...	...	...	...	3,721 20
	Hagarji ...	No. 6487 of 17th December 1878 ...	13,921 5	11,390 4	2,495 9	*35 32	...	398	11,788 4
	Andaldal ...	Do. ...	12,193 0	10,138 12	...	*88 28	...	...	10,138 12
		TOTAL ...	31,824 30	27,316 36	2,495 9	124 18	...	398	27,714 36
Sadhuja.	Sadhuja ...	No. 6487 of 17th December 1878 ... / No 2405 of 25th March 1895 ...	7,685 •1	12,113 20	...	...	...	1,293 8	13,406 28
	Budh ...	Do. ...	1,217 17	1,266 16	...	...	...	...	1,266 16
	Bahab ...	Do. ...	8,995 10	2,967 4	...	...	...	...	2,967 4
	Shahpur ... / Ket Shahu ...	Do. ...	11,215 12	12,014 16	...	...	...	9,019 16	21,033 32
	Panhwari ...	No. 6487 of 17th December 1878 ...	587 17	134 9	453 17	...	...	339 24	473 24
	Azizpur ..	Do. ...	880 10	332 16	547 34	...	...	129 24	462 0
	Wahidpur ...	No. 9253-A of 23th November 1895.	1,500 21	...	1,500 21	...	...	8,361 8	8,361 8
		TOTAL ...	32,071 8	28,827 32	2,501 32	...	...	19,133 0	47,960 32

* Diforested No. 1049 of the 10th October 1890.

A. N. MASTER,
Divisional Forest Officer,
Sukkur.